ABSTRACT OF THE DISCLOSURE

A phase shifter according to this invention includes a circuit board having a semi-insulating layer. An active layer is formed in a transmission line forming portion on one surface side of the semi-insulating layer, a first ground conductive layer is formed on the other surface side, a transmission line is formed on the upper side of the active layer, and a second ground conductive layer is formed on the transmission line forming surface of the semi-insulating layer in close proximity to one side of the transmission line. If a bias voltage of negative polarity is applied to the transmission line, reverse bias is applied to the active layer to form a depletion layer and capacitance is equivalently connected to the transmission line having inductance. A phase shift amount can be freely controlled by changing the value of the capacitance according to the bias voltage.